Doc Code: AP.PRE.REQ

PTO/SB/33 (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
930086-2015

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on _____

Signature _____

Typed or printed name _____

Application Number	Filed
10/551,484	4 January 2007
First Named Inventor	
Ryu et al.	
Art Unit	**Examiner**
1793	Hendrickson, S.

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☐ attorney or agent of record. Registration number _____

☑ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 48,104

/Howard C. Lee/
Signature

Howard C. Lee
Typed or printed name

(202) 292-1539
Telephone number

7 September 2010
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

REASONS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

I. Status of claims

Claims 1 and 3-11 are pending in this application. There are no amendments after final to be considered. The applicants request reconsideration of the 35 U.S.C. 112, first paragraph rejection and 35 U.S.C. 103(a) rejection of the pending claims over Kawakami et al. (U.S. Patent 7,001,581 – "Kawakami") made in the final rejection of 7 June 2010.

II. Basis for clear error in 35 U.S.C. 112, first paragraph rejection

With regard to an exemplification at 1 atm, it is noted that "there is a strong presumption that an adequate written description of the claimed invention is present when the application is filed. *In re Wertheim*, 541 F.2d 257, 263, 191 USPQ 90, 97 (CCPA 1976) ("we are of the opinion that the PTO has the initial burden of presenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims"), see also MPEP 2163, section I. A. This rejection is in error because there is nothing in the record which suggests this strong presumption has been overcome as there is no underlying basis for the statement that the "this pressure [of 1 atm] appears impossible".

The Examiner asserts that the basis for the rejection is written description ("possession of the invention") and not enablement ("This is not an enablement rejection…" last two lines on page 2 of the final rejection). However, the rejection again refers to plausibility (enablement) rather than possession ("The specification lacks recitation of 1 atm, and this does not appear plausible." Fourth from last line on page 2 of the final rejection).

If the basis for the rejection was on possession of the invention, the applicants note that the claimed lower limit of 1 atm was not only part of the original claims (claim 7), but also part of the specification (see e.g. paragraph [0019] of the publication of the application) and constitutes sufficient written description/possession of the invention.

If the basis of the rejection was based on enablement, the applicants again reiterate that the a *Wands*-type analysis has not been made which establishes that the applicants' invention lacks enablement.

Lastly, the Examiner appears to be confusing the interpretation of the term "critical" in the applicants' claims and specification, i.e. no one having ordinary skill in the art would recognize the Examiner's apparent interpretation of the term "critical".

It has recently been upheld that the standard to be used by Office personnel in determining the meaning of a claim term should always be that of the broadest ***reasonable*** interpretation in light of the specification and teachings thererin. ("The PTO's construction here, though certainly broad, is unreasonably broad. The broadest-construction rubric coupled with the term "comprising" does not give the PTO an unfettered license to interpret claims to embrace anything remotely related to the claimed invention. Rather, claims should always be read in light of the specification and teachings in the underlying patent. *See Schreiber-Schroth Co. v. Cleveland Trust Co.*, 311 U.S. 211, 217 (1940)." *In re Suitco* (Fed. Cir. – April 14, 2010))

Here, the applicants are referring to preparing carbon nanotube from a ***liquid phase-*** carbon source. One of ordinary skill in the art would be familiar with phase diagrams and that the term "critical temperature" and "critical pressure" are terms of the art with respect to phase diagrams and refer to those temperatures and pressures which keep the carbon source in the liquid phase (as opposed to passing into either a gaseous or solid phase). This is the meaning which is consistent with the state of the art and the applicants' specification and would be determinable by those of skill in the art.

(In an effort to expedite prosecution, the applicants offer to insert (via an Examiner's Amendment) the elements of claims 6 and 7 into claims if this would result in a Notice of Allowance)

III. Basis for clear error in 35 U.S.C. 103(a) rejection

The only comment in the final rejection with regard to the applicants' arguments and amendments filed on 8 April 2010 was that "[t]he argument about the catalyst overlooks the use of organic acid salts, as noted above [While the reference does not teach the compounds enumerated, the teaching of acid salts and enumeration of formate and oxalate renders the claim obvious, since these are organic acid anions (like acetate)]."

However, Kawakami nor the state of the art neither teaches nor suggests that (1) the catalyst is an autogenous seed catalyst; or (2) that the catalyst is a metal containing acid salt where the acid is selected from the group consisting of acetic acid, hydrochloric acid, sulfuric acid and nitric acid.

The final rejection acknowledges that the recitation of formate and oxalate does not represent a teaching of the salts claimed by the applicants.

In addition, formate and oxalate cannot be considered to be obvious variants in light of the teaching of Kawakami as it is not even required that a salt of a transition metal be used in Kawakami's process for making nanotubes (see col. 10, lines 9-14 which also refers broadly to metal sulfides, metal carbides, transition metal nitrides and transition metal oxides).

Even if one of ordinary skill in the art were to magically divine the specific salts used by the applicants from the broad teachings and virtually infinite number of possible catalysts referred to by Kawakami, there is still no teaching that this salt would be part of an autogenous seed catalyst which is defined by the applicants in page 5, line 13 – page 6, line 7 of the specification (or paragraph [0017] of the publication of this application) as being a seed catalyst which is spontaneously generated by controlling heating rate and pressurizing the liquid-phased hydrocarbon based material.

With regard to claims 4 (amount of hydrocarbon material and autogenous seed catalyst) and claims 9 and 10 (heating and cooling rate), it is alleged that these elements are obvious because "these are routine variations to one of ordinary skill to optimize reaction time and throughput for large-scale processing."

However, MPEP 2144.05 section II.B. (Optimization of Ranges) states that "A particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977)." No such suggestion was made either in the Kawakami or the general state of the art.

For the above reasons, the obviousness rejection in view of Kawakami is in error and should be withdrawn.